

the data conference manager] and a videoconference between the first and second participants [managed by the AV conference manager].

4. (Once Amended) The teleconferencing system of claim [2]8, wherein[, if] the workstations of a first and second [of the] participant[s] have AV [capture and reproduction] capabilities for [capturing] originating and reproducing video images and spoken audio of the participants, and the workstation of a third [of the] participant[s] has audio, but not video, capture and reproduction capabilities, and wherein the data conference and AV conference managers and the directory are configured to co-operate to enable a [the] teleconference [includes] having a data conference among the first, second and third participants managed by the data conference manager and a videoconference among the first, second and third participants [managed by the AV conference manager, wherein each of] in which the first and second participants can reproduce the image and spoken audio of [the] each other [as well as] and the spoken audio of the each third participant, and the third participant can reproduce only the spoken audio of the first and second participants.

5. (Once Amended) The teleconferencing system of claim [2]8, wherein[, if] the workstations of a first and second [of the] participant[s] have AV [capture and reproduction] capabilities for [capturing] originating and reproducing video images and spoken audio of the participants, and a third [of the] participant[s] participates in the teleconference by telephone and wherein the data conference and AV conference managers and the directory are configured

to co-operate to enable a, [the] teleconference [includes] having a data conference among the first and second participants managed [by the data conference manager] and a videoconference among the first, second and third participants, [wherein each of] in which the first and second participants can reproduce the image and spoken audio of the other as well as the spoken audio of the third participant, and the third participant can reproduce only the spoken audio of the first and second participants.

- 27
6. (Once Amended) The teleconferencing system of claim ~~28~~, further comprising:
- (a) a participant locator which associates a participant with an identifier entered when the participant logs into any one of a plurality of workstations, whereby a subsequent call to initiate a videoconference with [the first] that participant is routed to the workstation at which the participant is logged in.

- 27
7. (Once Amended) The teleconferencing system of claim [6] ~~28~~, further comprising:
- (a) a services directory for tracking the audio and video origination and reproduction capabilities associated with each workstation, whereby a call, from a second to a first participant, and including a request for a service with respect to the first participant, is processed based on which capabilities are associated with the first participant.

8. (Once Amended) The teleconferencing system of claim [6] 7, wherein the data conference and AV conference managers manage a teleconference among a plurality of participants such

that, if at least one capability of the set of capabilities consisting of audio capture, audio reproduction, video capture, video reproduction, and the capability of connecting to the first network, is not available to at least one of the participants, each of the plurality of participants can participate in the teleconference to the extent of the capabilities available to the participant.

<sup>9</sup>  
10. (Once Amended) The teleconferencing system of claim [6] <sup>7</sup>, further comprising:

(a) signal format converter[sion means for] configured to convert[ing] signals of one format to another format, whereby the teleconferencing system can support [capture] originating and reproduction devices based on different signal format standards.

<sup>10</sup>  
11. (Once Amended) The teleconferencing system of claim <sup>27</sup>~~28~~, wherein the AV path connects the workstation of a first participant at a first location to the workstation of a second of the participants at a second location via a third location, and further comprising:

(a) an AV signal switcher at the third location, coupled to the AV path[, for receiving and routing] to receive and route the AV signals to a location other than the third location if the AV signals are intended to be processed at the other location.

<sup>11</sup>  
12. (Once Amended) The teleconferencing system of claim <sup>10</sup>~~11~~, further comprising:

(a) at least a first and a second codec[, in communication with the AV path and being respectively located] at the first and second locations respectively, each configured to[, for] compress[ing] the AV signals and decompress[ing] compressed AV signals[, whereby] and

wherein [captured] video [image] and [spoken] audio [of the first participant can be], compressed by the first codec [at the first location], can be routed from the first location to the second location via the AV signal switcher without being decompressed at the third location [and decompressed by the second codec at the second location for reproduction at the workstation of the second participant].

<sup>12</sup>  
13. (Once Amended) The teleconferencing system of claim <sup>10</sup>11, where[by] in the video image and spoken audio of the first participant routed to the second location, via the third location, can be reproduced at the workstations of both the first and second participants.

<sup>13</sup>  
14. (Once Amended) The teleconferencing system of claim <sup>12</sup>13, further comprising a video mosaic generator[, in communication with the AV path,] for combining the captured images of a first and second participant into a mosaic image for reproduction at least one workstation.

<sup>14</sup>  
15. (Once Amended) The teleconferencing system of claim <sup>13</sup>14, further comprising [means, in communication with the AV path,] a distributed mosaic generator for combining a portion of the mosaic image with a captured image of a third participant to generate a composite mosaic image for production at least one workstation.

<sup>15</sup>  
16. (Once Amended) The teleconferencing system of claim <sup>12</sup>15, further comprising an audio summer[ in communication with the AV path,]for receiving the captured audio of a first, second

and third participant and combining the received audio of the second and third participants into an audio sum for reproduction at the workstation of the first participant.

<sup>16</sup>  
17. (Once Amended) The teleconferencing system of claim <sup>15</sup>16, further comprising means[, in communication with the AV path], for combining a portion of the audio sum with the captured audio of another of the participants to generate a composite audio sum for reproduction at the workstation of at least one of the participants.

<sup>17</sup>  
18. (Once Amended) The teleconferencing system of claim <sup>12</sup>13, further comprising:  
(a) at least one signal router for routing at least the AV signals among participant's workstations in such a way so as to optimize the carrying of AV signals between the workstations.

<sup>18</sup>  
19. (Once Amended) A teleconferencing system of claim <sup>17</sup>18, wherein the router optimizes the signal routing based on either the actual or anticipated state of the AV path.

<sup>19</sup>  
Cancel Claim 20.

<sup>20</sup>  
21. (Once Amended) The teleconferencing system of claim <sup>21</sup>20, further comprising:  
(a) a video mosaic generator[, in communication with the AV path,] for combining the captured images of a first and second participant into a mosaic image; and

(b) a distributed mosaic generator[, in communication with the AV path,] for combining a portion of the mosaic image with a captured image of a third participant to generate a composite mosaic image of the captured images of the first, second and third participants.

<sup>21</sup>  
~~22.~~ (Once Amended) The teleconferencing system of claim [21]<sup>27</sup>~~28~~, further comprising:

- C2
- (a) a video mosaic generator, [coupled to the AV path], for combining the captured images of a first and second of the participants into a mosaic image of the captured images, whereby the mosaic image can be reproduced at the workstations of the first and second participants; and
  - (b) a close-up selector for selecting the image one participant whose image is reproduced in the mosaic image and replacing the mosaic image with the selected image.

<sup>22</sup>  
~~23.~~ (Once Amended) The teleconferencing system of claim <sup>27</sup>~~28~~, further comprising:

- (a) a video mosaic generator[, coupled to the AV path,] for the captured images of a first and second of the participants into a mosaic image of the captured images; and
- (b) an audio summer[, coupled to the AV path,] for [combining] receiving the captured audio of [a plurality of] first, second and third participants and combining the received audio of second and third participants into an audio sum [including the captured audio of each of the participants except for a first of the participants, whereby the audio sum can be reproduced] for production at the workstation of the first participant.

<sup>23</sup>  
~~24.~~ (Once Amended) A method of for conducting a teleconference among a plurality of participants having workstations with associated monitors for displaying visual images, and with associated AV capture and reproduction capabilities for capturing and reproducing video images and spoken audio of the participants, the workstations being interconnected by a first network, the network providing a data path for carrying digital data signals among the workstations, the method comprising the steps of:

- C<sup>2</sup>
- (a) managing a data conference during which data is shared in real-time among a plurality of the participants and displayed on the monitors of their respective workstations;
  - (b) moving AV signals representing video images and spoken audio of the participants among said workstations;
  - (c) managing a videoconference during which the video image and spoken audio of one of the participants is reproduced in real-time at the workstation of another of the participants;
  - (d) providing at least one AV reproduction device with associated capabilities of reproducing at least audio or video signals at a workstation;
  - (e) defining at least one directory of AV reproduction devices and each device's associated capabilities; and
  - (f) processing a request for a reproduction service to cause an appropriate AV reproduction device to provide the requested reproduction service to the workstation.

<sup>24</sup>  
~~25.~~ (Once Amended) The method of claim <sup>23</sup> ~~24~~, further comprising the steps of:

- (a) tracking the audio and video capabilities associated with each workstation; and

(b) processing a call, from a second to a first participant, by including a request for a service with respect to the first participant, based on the capabilities associated with the first participant.

<sup>25</sup>  
26. (Once Amended) The method of claim <sup>23</sup>24, further comprising the step of:

C2 (a) managing a teleconference among a plurality of participants such that, if at least one capability of the set of capabilities consisting of audio capture, audio reproduction, video capture, video reproduction, and the capability of connecting to the first network, is not available to at least one of the participants, each of the plurality of participants can participate in the teleconference to the extent of the capabilities available to the participant.

<sup>26</sup>  
27. (Once Amended) The method of claim <sup>23</sup>24, further comprising the step of:

(a) converting signals of one format to another format to enable the teleconferencing system to support capture and reproduction devices based on different signal format standards.

✓  
Please add the following claim:

Sub E3  
C3 <sup>27</sup>  
28. A teleconferencing system for conducting a teleconference among a plurality of participants, the systems comprising:

(a) a workstation associated with each of at least three participants, each workstation having at least one origination and at least one reproduction capability, each selected from the group consisting of audio, video and data origination/reproduction capabilities;



- C<sup>3</sup>
- (b) a first network providing a data path for carrying digital data signals among the workstations;
  - (c) a data conference manager for managing a real-time data conference during which shared data is displayed on the workstation monitors of a plurality of the participants;
  - (d) an AV path for carrying AV signals, representing video images and spoken audio of the participants;
  - (e) a plurality of AV reproduction devices each having capabilities for reproducing audio or video signals at a workstation and configured to address a request for audio and/or video reproduction services generated at one of the workstations;
  - (f) a directory of each AV reproduction device and its associated capabilities; and
  - (g) an AV conference manager for managing the real-time reproduction of the video images and audio of one participant at the workstation of another participant;
- the AV conference manager and directory being configured to interact to address a request for an AV reproduction service, generated at a workstation, to cause an appropriate AV reproduction device to provide the requested reproduction service to the workstation.

## REMARKS

### Introduction

This amendment amends certain claims and cancels others. This is done without prejudice and to more clearly define the invention.